6.02 Inventory Costing Methods

Specific Identification

- Must be able to identify each unit sold.
- Used when inventory is few in number, very expensive and can be clearly identified, very heterogeneous items.

FIFO: First-in, First-out

- FIFO assumes that goods are sold in the order of acquisition (ie, first items acquired are the first items sold).
  - o The inventory remaining on hand is presumed to consist of the most recent purchases; that is, last items acquired are still here in ending inventory (LISH – Last in, Still Here).
  - o This closely relates to the actual *physical flow of goods*.
- In periods of rising prices, FIFO results in the:
  - o Highest ending inventory,
  - o Lowest cost of goods sold (COGS), and
  - o Highest net income.
- Perpetual and periodic inventory systems are the *same*.

LIFO: Last-in, First-out

- The most recent costs are expensed and matched with current revenues (ie, last items acquired are the first items sold).
  - o The inventory remaining on hand is presumed to consist of the goods acquired first; that is first items acquired are still here in ending inventory (FISH – First in, Still Here).
- This better represents the *flow of cash*.
  - o LIFO does not assume goods are sold in the reverse order of acquisition. Instead, using the most recently acquired item as COGS approximates the replacement cost of the item. That is, the true cost of an inventory item that has been sold is the cost of replacing it.
- In periods of rising prices LIFO results in the:
  - o Lowest ending inventory,
  - o Highest COGS, and
  - o Lowest net income.
- Perpetual and periodic inventory systems are *different*.
- *LIFO conformity rule* – If used for tax purposes, must also be used for financial reporting purposes.

FIFO = COGS (LISH = Ending Inventory)	LIFO = COGS (FISH = Ending Inventory)
If costs are going up ↑	
COGS understated	COGS ok
NI overstated	Profits ok – I/S is fair
Ending inventory - ok	Ending inventory - understated
Balance sheet ok (I/S not ok)	Income statement ok (B/S not ok)

Average Inventory Methods

- Assign the same unit price to similar goods available during the period.
  - Moving Average (Perpetual) – This method computes the average after each purchase.
  - Weighted Average (Periodic) – This method takes total costs of all inventory purchases during the year and divides them by the total number of inventory units available during the year.

Assume a company had the following activity in the month of January:

Date	Units Purchased (Sold)	
Beginning inventory, 1/1	2	A, B
Purchase, 1/5	2	C, D
Sale, 1/12	(1)	
Purchase, 1/19	2	E, F
Sale, 1/26	(1)	
Ending inventory, 1/31	4	

To make it easier to follow, let's name the first two units in inventory, A and B, the two units purchased on 1/5, C and D, and the two units purchased on 1/19, E and F.

Assuming the **perpetual** approach is used, each transaction is processed as it happens. Let's see which units are left in inventory after each transaction, using FIFO and LIFO:

Units after transaction	FIFO	LIFO
Start of Month	A+B	A+B
January 5, Plus 2	A+B+C+D	A+B+C+D
January 12, Minus 1	B+C+D	A+B+C
January 19, Plus 2	B+C+D+E+F	A+B+C+E+F
January 26, Minus 1	C+D+E+F	A+B+C+E

If a **periodic** approach is used, all the purchases are recorded first, then the sales:

Units after transaction	FIFO	LIFO
Start of Month	A+B	A+B
Purchases, Plus 4	A+B+C+D+E+F	A+B+C+D+E+F
Sales, Minus 2	C+D+E+F	A+B+C+D